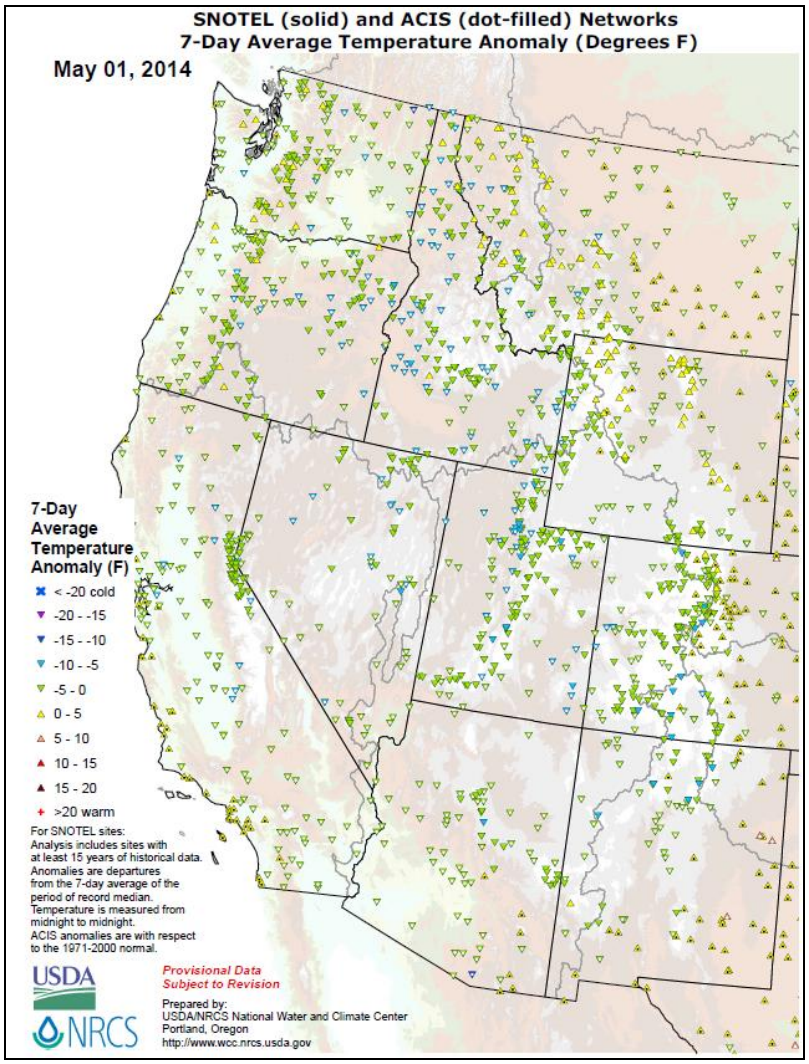
United States Department of Agriculture

Natural Resources Conservation Service
P.O. Box 2890
Washington, D.C. 20013

Weekly Snowpack / Drought Monitor Update

May 1, 2014

Temperature

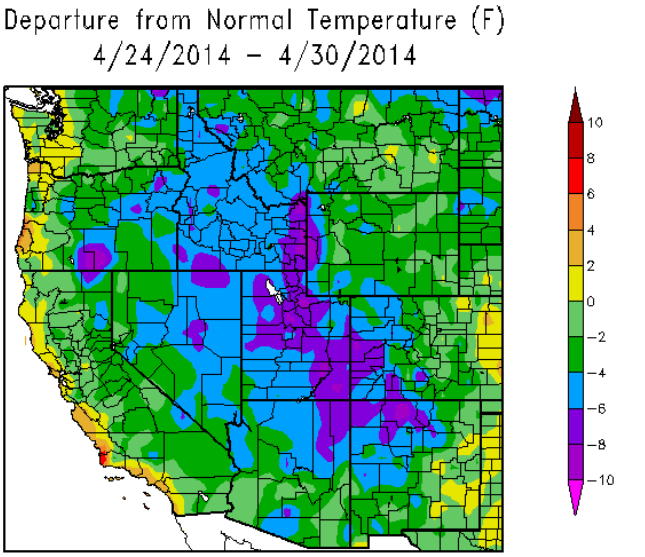


SNOTEL and ACIS 7-day temperature anomaly shows temperatures below normal west of the Continental Divide and closer to normal east of the Divide.

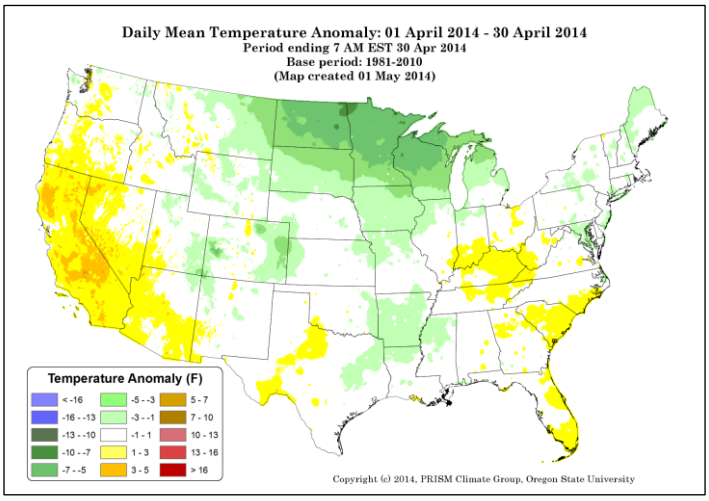
Click on most maps in this report to enlarge and see latest available update.

ACIS 7-day average temperature anomalies, ending April 30, show the greatest negative temperature departures over the interior West (<-6°F). The greatest positive temperature departures occurred near Santa Barbara, CA (>+6°F).

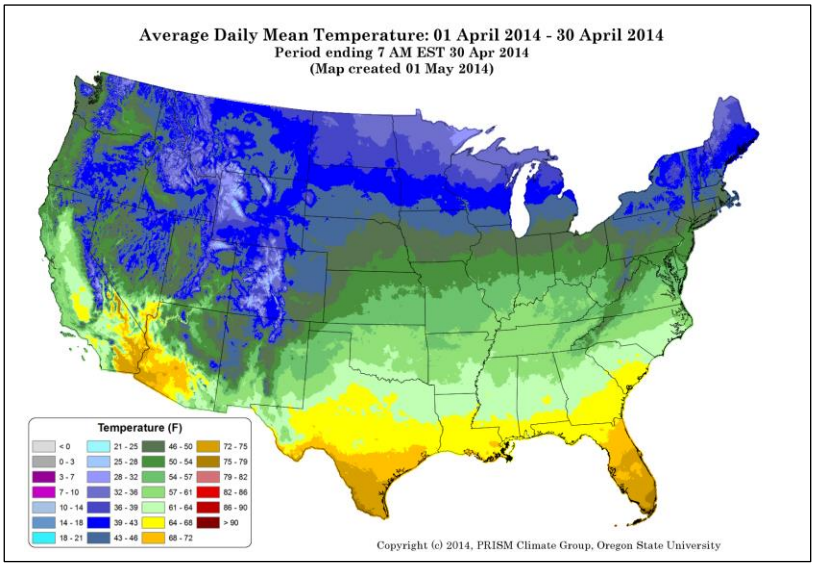
- ✓ Also, see Dashboard and the Westwide Drought Tracker.



This preliminary PRISM temperature map contains all available network data, including SNOTEL data, and will be updated periodically as additional data become available and are quality controlled.



← April 2014 temperature departures map shows a cold pattern over the central region of the country; especially over the northern Great Plains <-7°F). Above normal temperatures dominated parts of California (>+3°F). Elsewhere, near normal conditions prevailed.

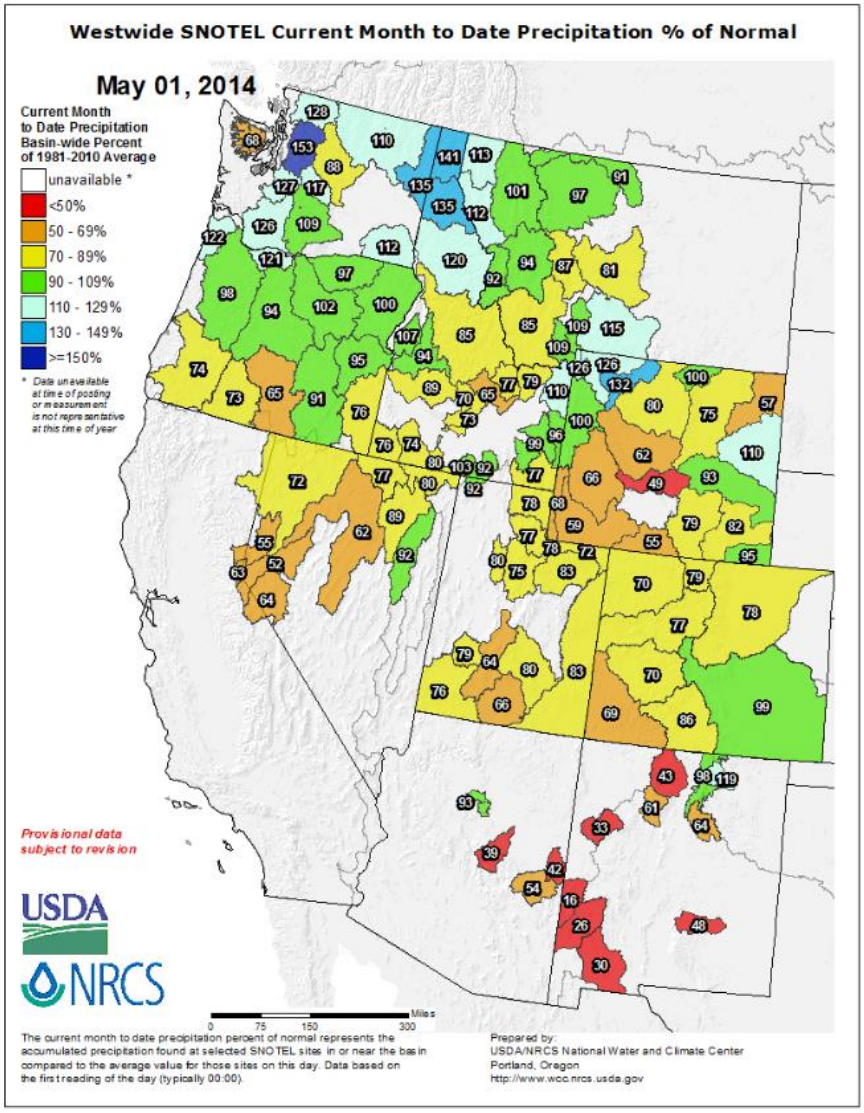


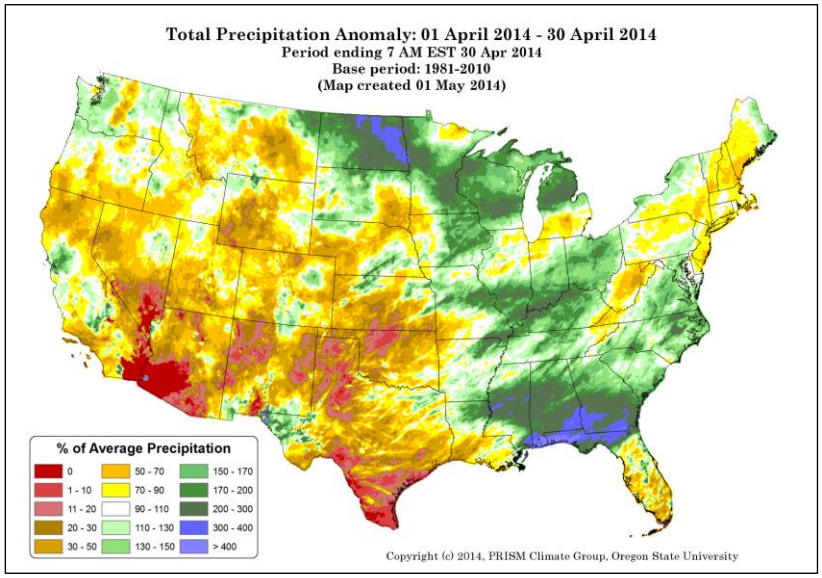
Forecasting the start of the spring snowmelt and subsequent runoff depends, in part, on when average temperatures warm to above freezing. Monitoring this type of climate map is a useful way to gauge when this onset is likely to occur.

Precipitation

The April SNOTEL precipitation percent of normal map shows predominately deficit conditions over much of the West. Surpluses are noted over the Washington Cascades and northern Idaho Panhandle, and over northwest Wyoming.

Near normal conditions occurred over much of Oregon, north central Montana, and along the upper Snake River (southeastern Idaho).



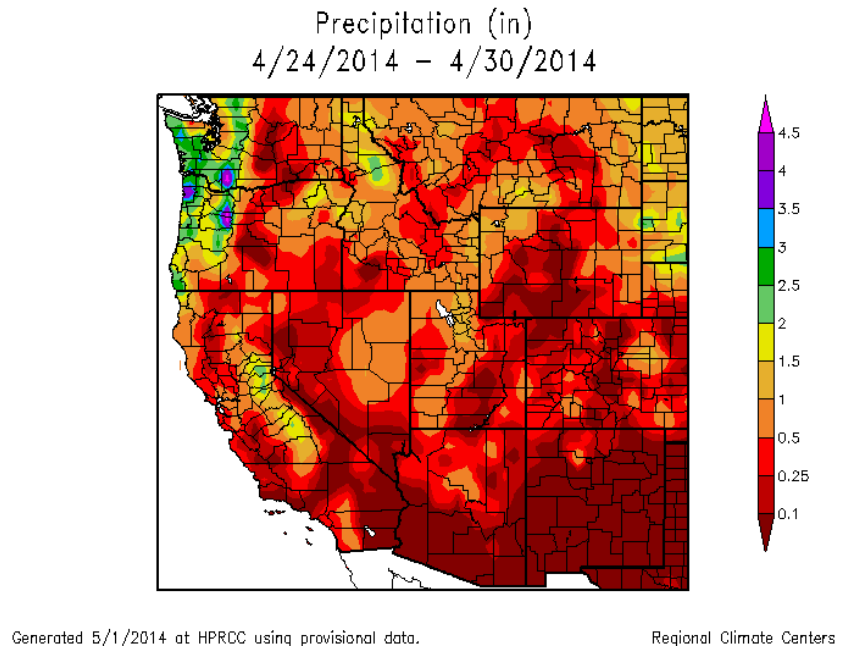


← The April **precipitation anomaly** pattern reveals surplus moisture over parts of eastern North Dakota and over the extreme southern portion of the Gulf Coast states. The Southwest, southern Great Plains, and Texas experienced significant deficits for the month.

This preliminary daily PRISM precipitation map contains all available network data, including SNOTEL data, and is updated periodically as additional data become available and are quality controlled.

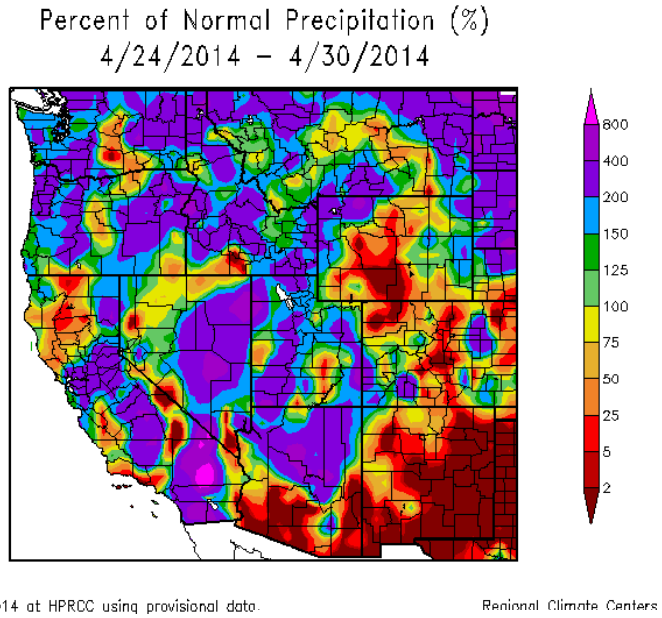
The ACIS 7-day total precipitation map shows continued abundant moisture falling over western Washington and Oregon, with lesser amounts over the Sierra Nevada, northern Idaho, and western South Dakota.

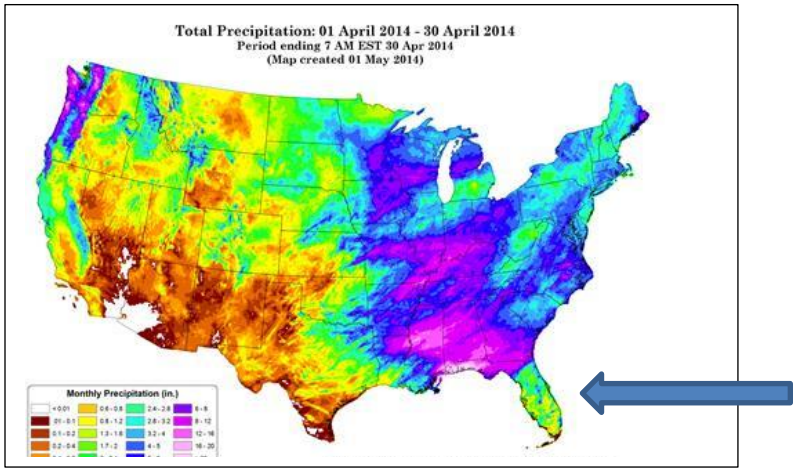
Little if any precipitation occurred over southern California, southern Arizona, much of New Mexico, the high country in Colorado, and southern and central Wyoming.



As would be expected based on the map above, this map reflects a similar pattern of precipitation that fell across the West during the week. →

Last week was rather wet across much of the West in terms of expected precipitation for this drier time of year. All but large parts of Wyoming, Colorado, southern Arizona, and New Mexico missed out on an active weather period.





← The April 2014 **total precipitation** indicates large regions across the country with significant moisture (three bands across the Central Time Zone as well as western Washington) and dryness from the Great Plains to the California border. Areas that have been in drought for some time are not being helped if this pattern persists.

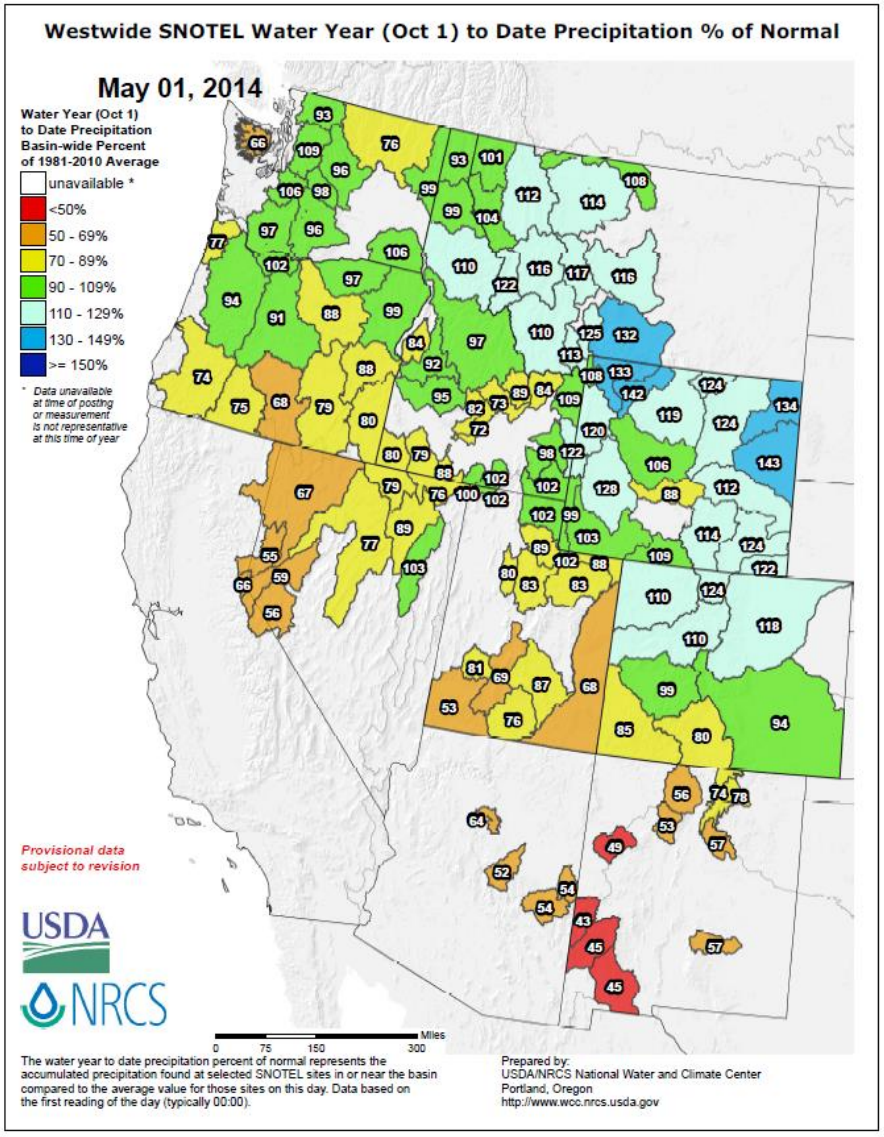
See Go Hydrology for current and forecast conditions over southern Florida.

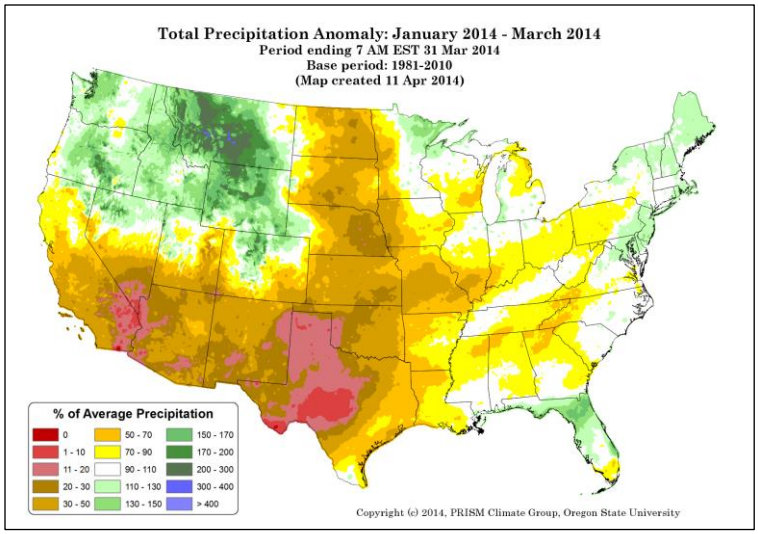
For the 2014 Water Year that began on October 1, 2013, only central Montana, most of Wyoming, and northern Colorado are experiencing surpluses.

Near average conditions dominated the northern half of the Cascades, the northern half of Idaho, westernmost Montana, the Lower Bear River in eastern Utah and southeast Idaho, and parts of the southern half of Colorado.

The largest deficits are centered over southern Oregon, western Nevada, southern and eastern Utah, Arizona, and New Mexico.

As the Water Year advances, it becomes more difficult for river basins to change bin categories.

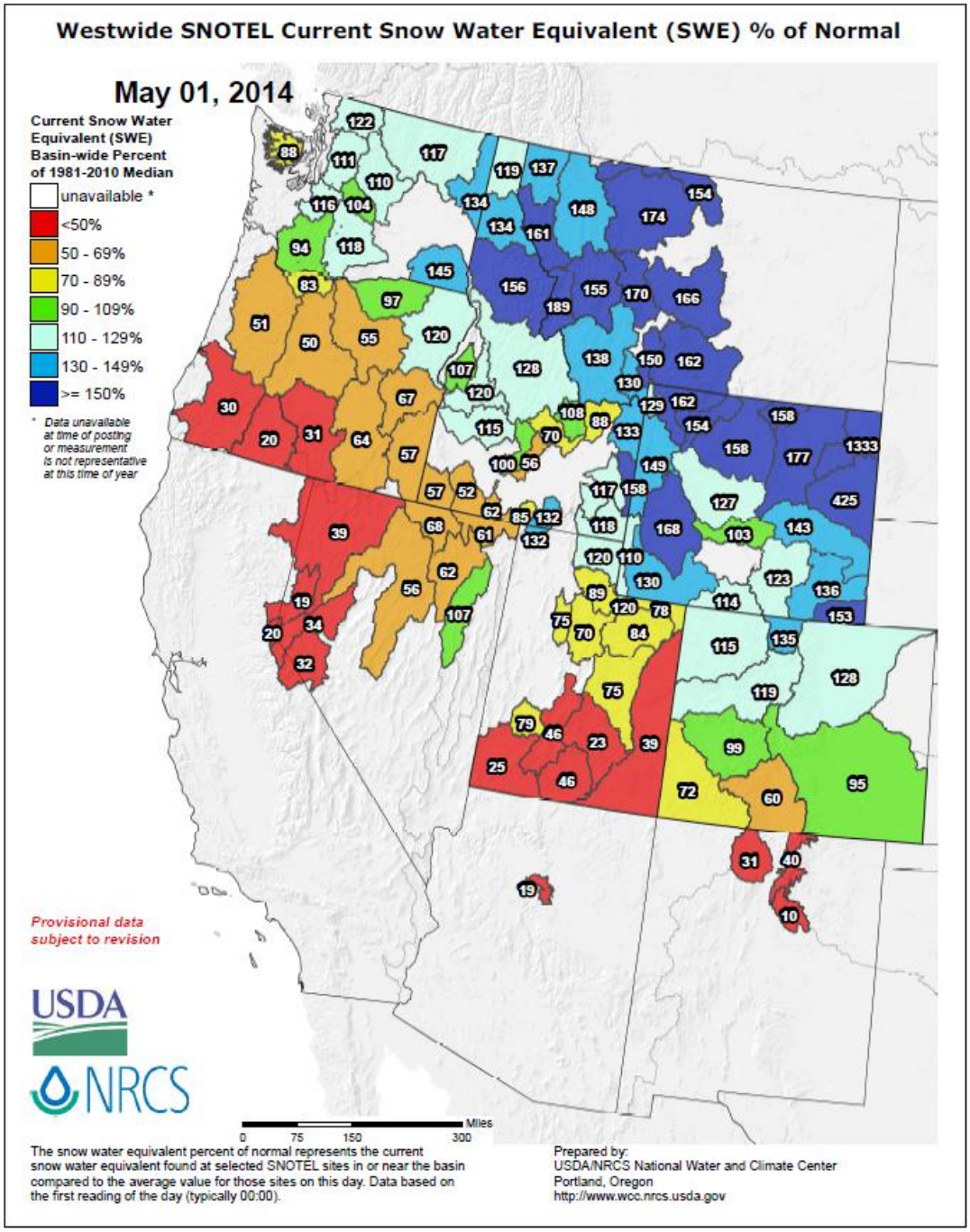




← The January through March 2014 **total precipitation anomaly** map shows extensive dryness across the Great Plains and the Southwest.

Extensive moisture is noted over the northern half of the Rockies and parts of the Pacific Northwest. Northern Florida and parts of New England were also slightly ahead of normal for this three-month period. Texas and the lower Colorado River area experienced less than 20% of normal monthly precipitation.

Snow



Snow Water Equivalent (SWE) values are generally higher east of the Continental Divide, with the exception of New Mexico. During this time of year, the percent of normal can increase without additional moisture if the melt of the snowpack is delayed by colder than normal conditions (as was the case this past week).

The water supply forecasts issued by the National Water and Climate Center for the spring and summer months are now available.

See the latest:

- National Snow Analysis
- West-Wide Water Supply Forecast Tables

Weather and Drought Summary

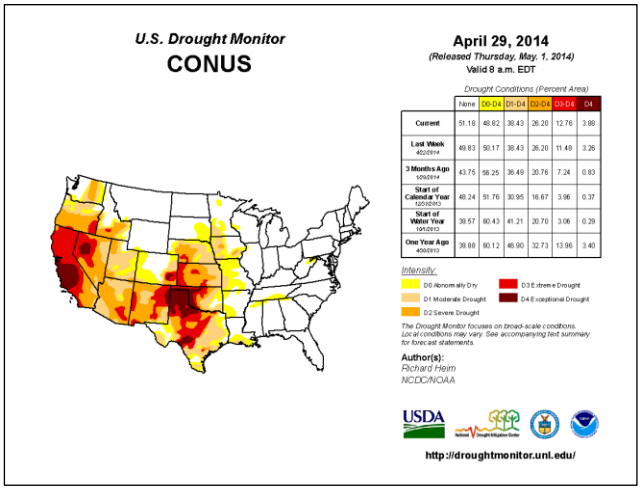
National Drought Summary – April 29, 2014

The following **Weather and Drought Summary** is provided by this week's NDMC Drought Author: Richard Heim, NCDC.

USDM Map Services: (contains archived maps)

"For the contiguous 48 states, the U.S. Drought Monitor showed 38.43 percent of the area in moderate drought or worse, compared with 38.43 percent a week earlier. D4 has increased to 3.88 percent.

For all 50 U.S. states and Puerto Rico, the U.S. Drought Monitor showed 32.11 percent of the area in moderate drought or worse, compared with 32.11 percent a week earlier.



See: Latest Drought Impacts during the past week.

- Drought worsens in western USA - April 25

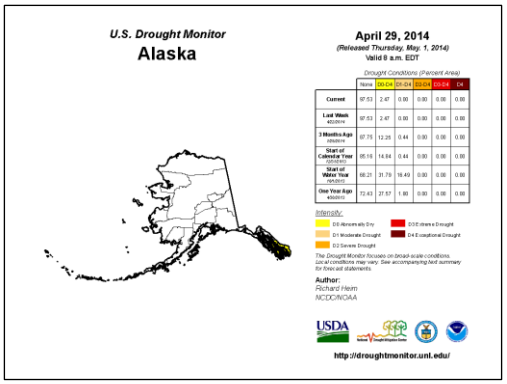
Current Drought Monitor weekly summary. The exceptional D4 levels of drought are scattered across CA, NV, CO, TX, OK, and NM.

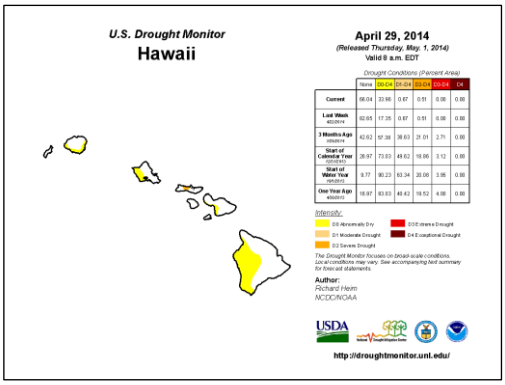
The latest drought indicator blend and component percentiles spreadsheet is a great resource for climate division drought statistics. This link is for the latest Drought Outlook (forecast). See climatological rankings.

For more drought news, see Drought Impact Reporter.

Drought Management Resources (√):

- ✓ Watch AgDay TV
- ✓ Drought Impacts Webinar Series
- ✓ Quarterly Climate Summary and Outlooks for the Great Lakes, Midwest and Missouri Basin States
- ✓ The Spring 2014 edition of DroughtScape





The 49th and 50th States show relatively benign drought conditions. No changes noted for Alaska and Hawaii has experienced significant improvements.

A comprehensive narrative describing drought conditions across other parts of the nation can be found toward the end of this document. For drought impacts definitions for the figures that follow, click here."

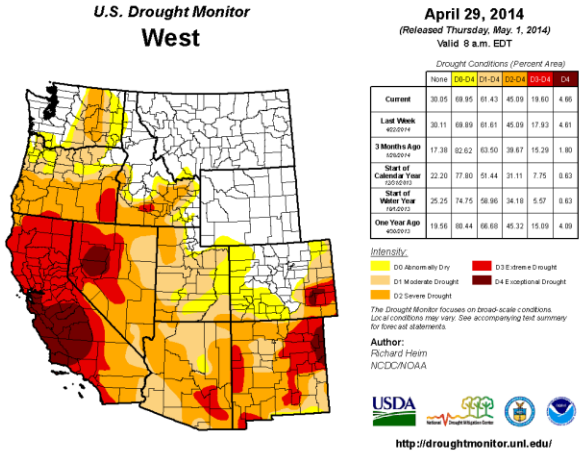
Risk Management Web Resources

- ✓ Drought Monitor for the Western States
- ✓ Drought Impact Reporter for New Mexico
- ✓ California Data Exchange Center & Flood Management
- ✓ Intermountain West Climate Dashboard
- ✓ Great Basin Dashboard
- ✓ CLIMAS January 2014 Climate Summary
- ✓ *California Sierra Nevada-related snow pack*

U.S. Impacts during the past week

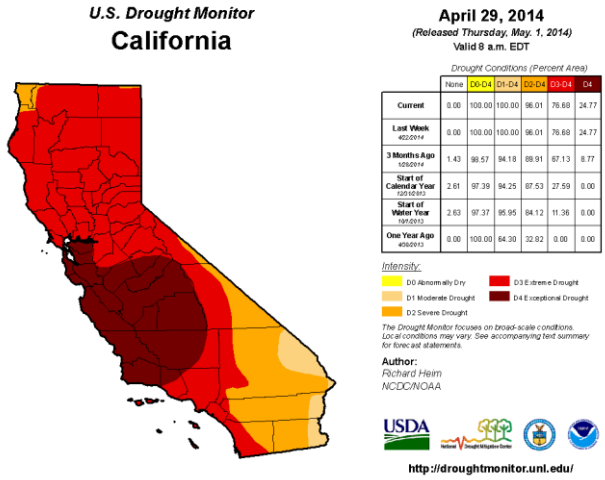
- BLM announces Arizona fire restrictions - April 21

Click to enlarge maps



Slight deterioration in D3 occurred this past week.

State with D-4 Exceptional Drought



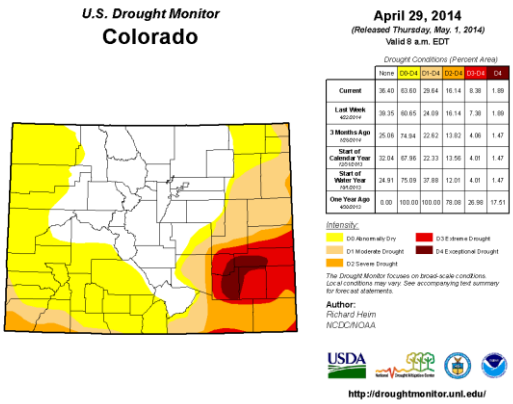
No changes have occurred during this past week.

CA Drought Information Resources

Drought News from California

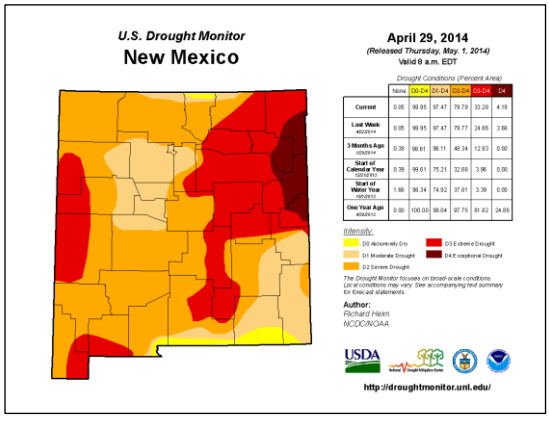
- California's Thirsting Farmland - April 20,
- Study links California drought to global warming - April 24.
- In California drought, big money, many actors, little oversight - April 25
- Governor Brown Issues Executive Order to Redouble State Drought Actions - April 25,
- California's water wars reach 'new level of crazy' - April 24
- Heron's Head Park rat population surges, thanks to drought - April 24
- Emergency food aid arrives in Central Coast counties in May - April 22
- East Bay to tap Sacramento River water - April 22
- Santa Cruz council gives final OK for water rationing - April 22.
- Water picture improves for some California towns - April 24

State with D-4 Exceptional Drought



Some deterioration in D3 occurred past this week.

- Data visualization: Don't blame fire season on the drought - April 19



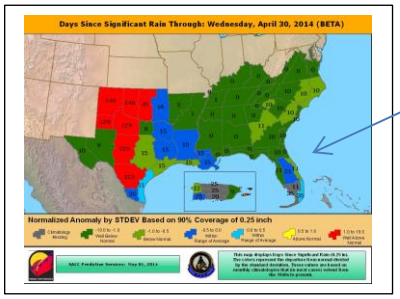
Significant increase in D3 occurred during the past week.

- Water rate hike likely — because use is down - April 22
- Feds release Rio Grande forecast - April 23

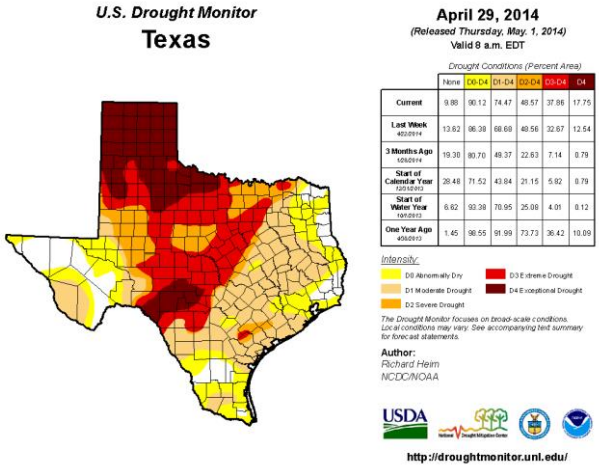
State with D-4 Exceptional Drought

- ✓ Texas Drought Website.
- ✓ Texas Reservoirs.
- ✓ **Texas Drought Monitor Coordination Conference Call: on Monday's 2:00 PM - 3:00 PM CST**

- City losing its patience with TCEQ - April 22
- USDA Declares 95% of TX Counties in Drought Disaster Status - April 27

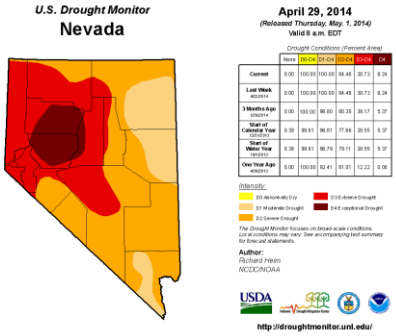


Days Since Significant Rain Summary



Significant increase in D3 and D4 occurred during the past week.

State with D-4 Exceptional Drought



No changes have occurred during this past week.

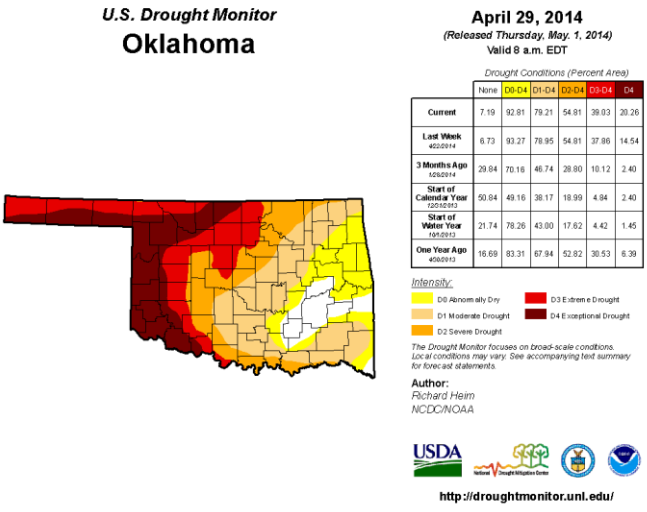
- Drought -- and neighbors -- press Las Vegas to conserve water - April 20

State with D-4 Exceptional Drought

Significant increase in D4 occurred this week.

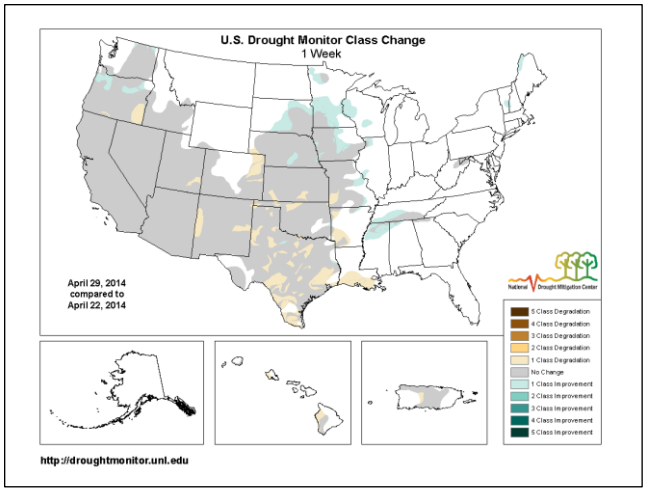
Related news:

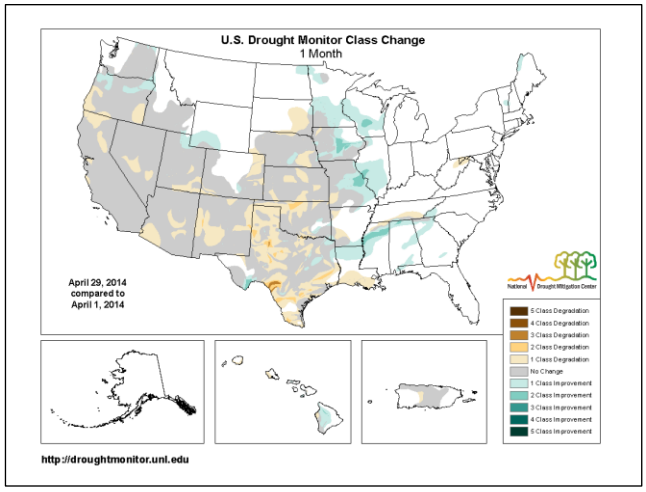
- ✓ 2014 Kansas Drought Report and Summary

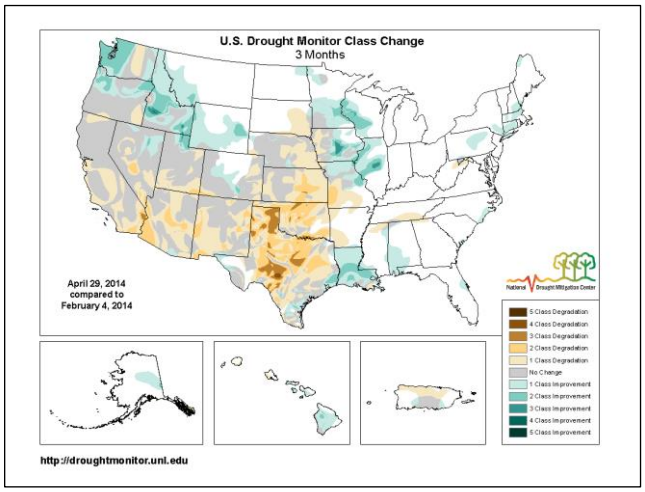


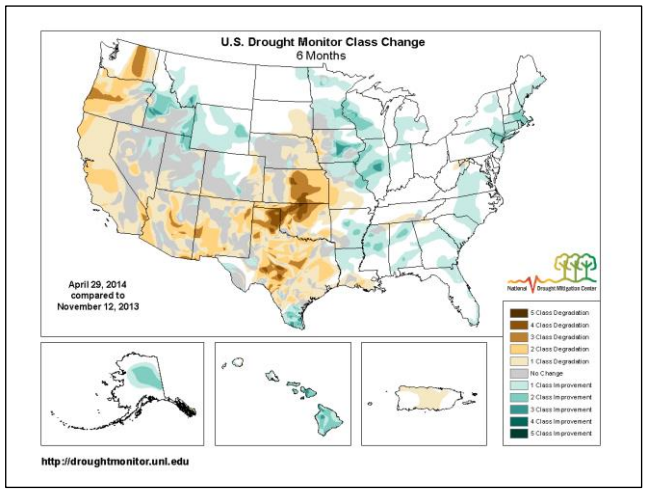
- ***Past 30 days precipitation totals***
- ***Past 30 days precipitation percent of normal***
- ***Calendar Year precipitation totals***
- ***Calendar Year precip percent of normal***

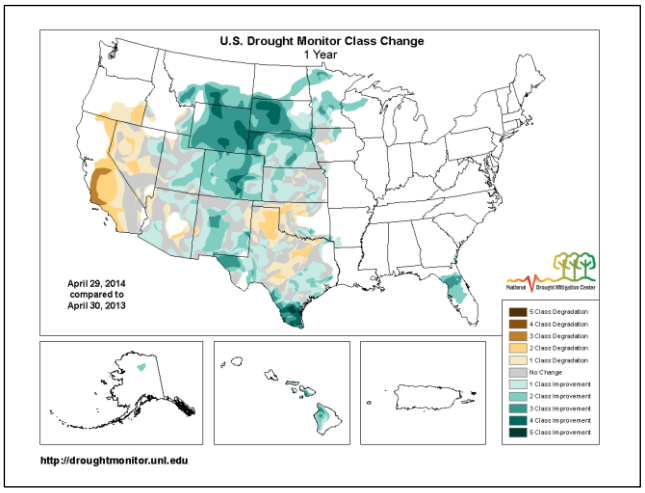
Changes in Drought Monitor Categories (over various time periods)

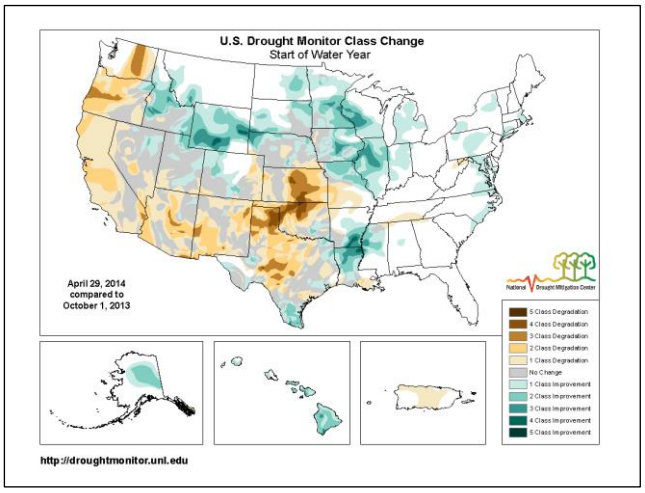






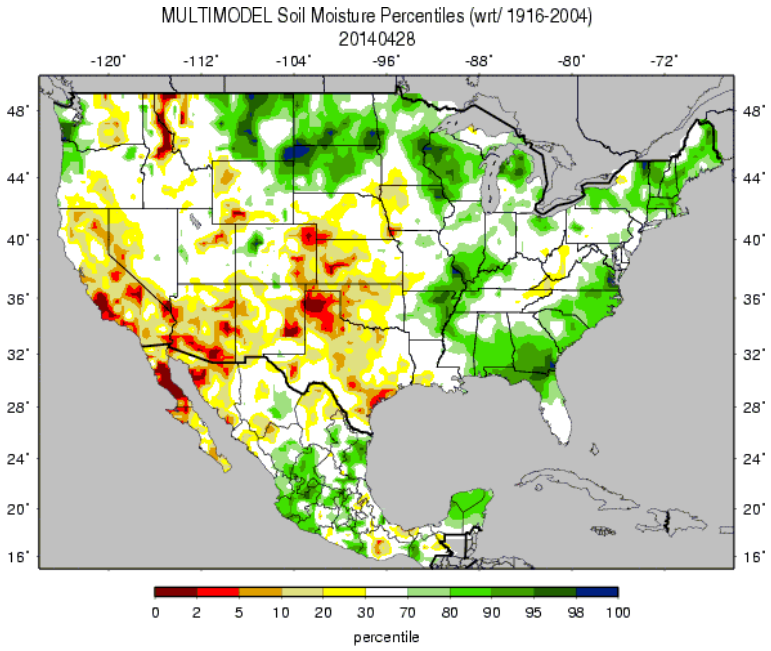






Click on any of these maps to enlarge. Note how the conditions over the Rockies and northern Great Plains have improved between 6 to 12 months (middle right to lower left maps). However, also note that since the start of the 2014 Water Year last October, conditions over the middle and southern Great Plains have deteriorated (lower right map).

Soil Moisture

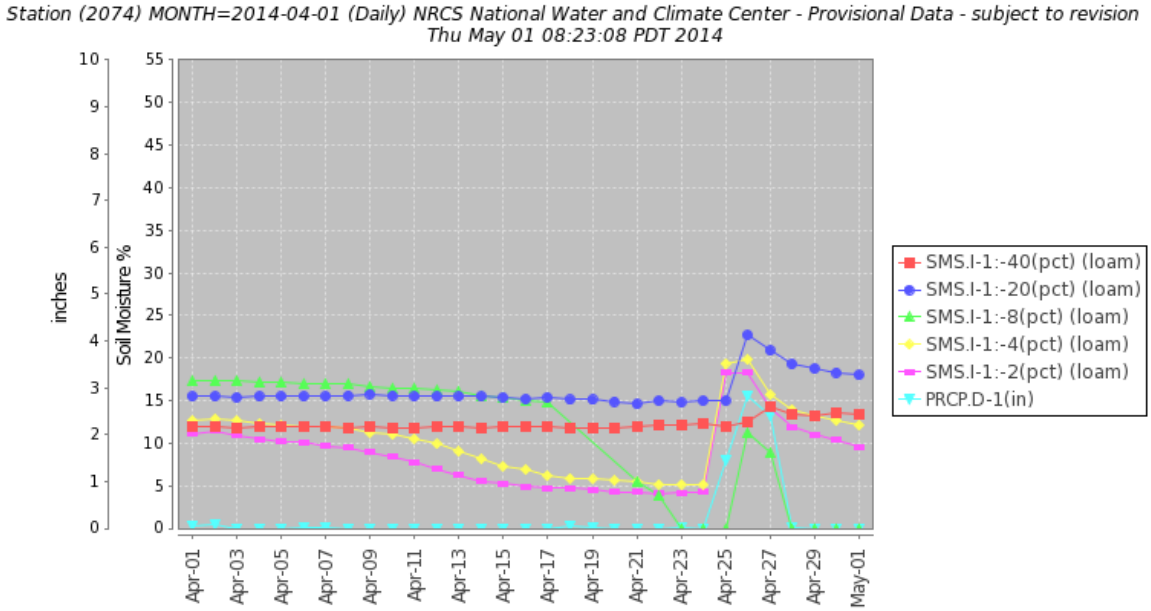


Note: Northernmost states at high elevation may still have soils with sub-freezing temperatures. Caution should be exercised when using these data.

Soil moisture ranking in percentile as of April 28 shows dryness over central California, southern Arizona, eastern New Mexico, and the southcentral Great Plains (i.e., northern Texas to northeast Colorado). Moist soils dominated the Gulf Coast states, eastern seaboard, central Montana, and northern Great Plains. With abundant snowpack in Montana, concern exists about potential Missouri River flooding in the coming weeks.

Useful Hydrological Links: Crop Moisture Index; Palmer Drought Severity Index; Standardized Precipitation Index; Surface Water Supply Index; Weekly supplemental maps, Minnesota Climate Working Group; Experimental High Resolution Drought Trigger Tool; NLDAS Drought Monitor; Soil Moisture.

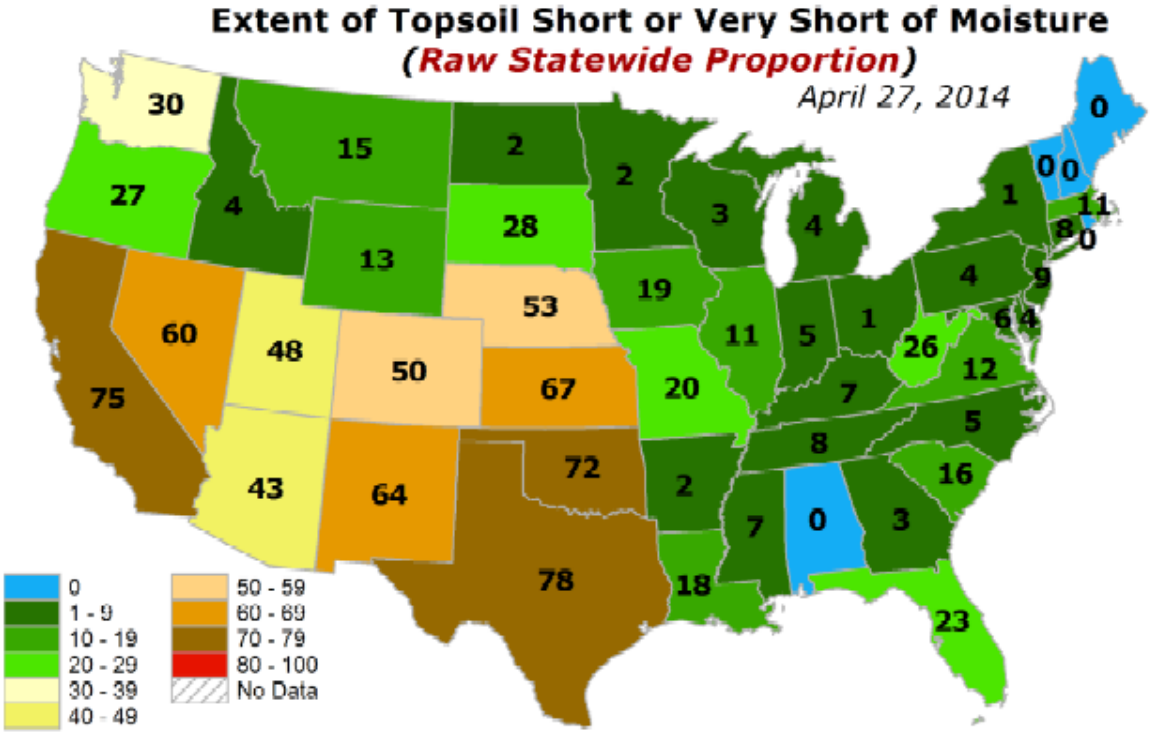
Soil Climate Analysis Network (SCAN)

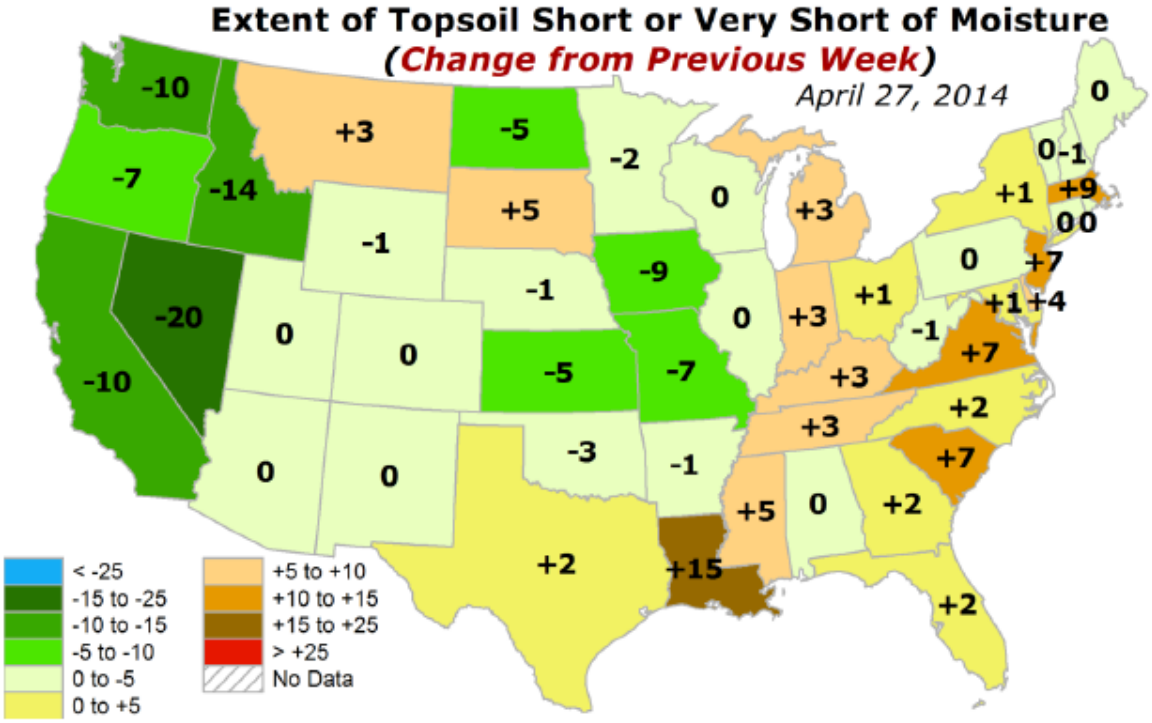


This NRCS resource shows soil moisture data at a SCAN site located in southcentral Oregon. Note with recent rains, a temporary improvement in soil moisture at all depths.

Useful Agriculture Links: Vegetation Drought Response Index; Evaporative Stress Index; Vegetation Health Index; NDVI Greenness Map; GRACE-Based Surface Soil Moisture; North American Soil Moisture Network. Monthly Wild Fire Forecast Report.

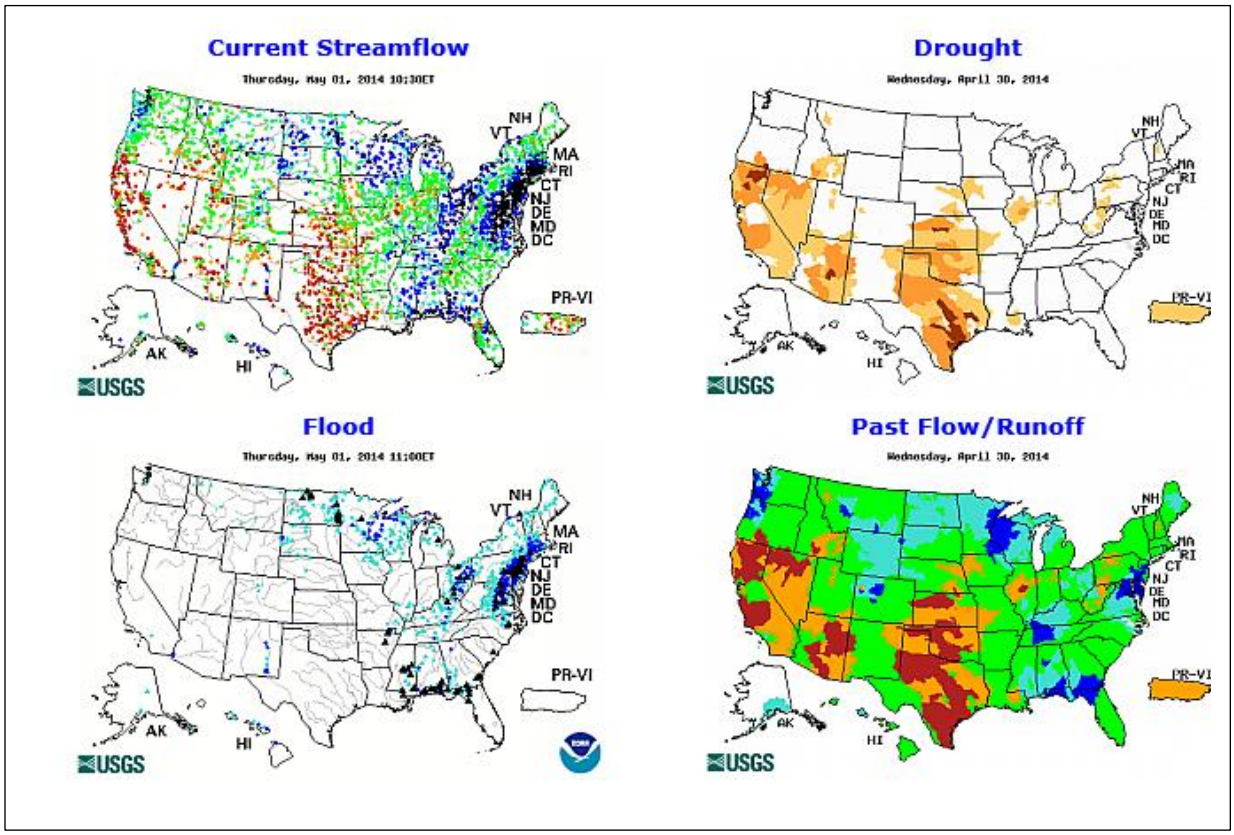
Topsoil Moisture





This figure is returning for the growing season. As noted in the top map, the southern and central Great Plains westward to California are experiencing low top soil moisture. Conditions improve over the northern Rockies across to New England and from the Mississippi River states eastward. Conditions worsened over Louisiana and improved over Nevada during mid-April (bottom map).

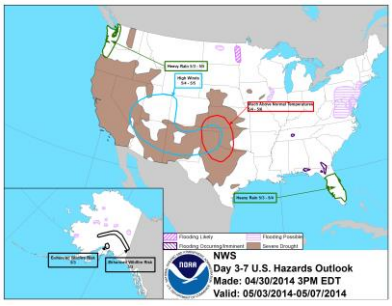
Streamflow



Streams are quite high over the Northeast and mid-Atlantic states as well as over the immediate Gulf Coast states (left maps).

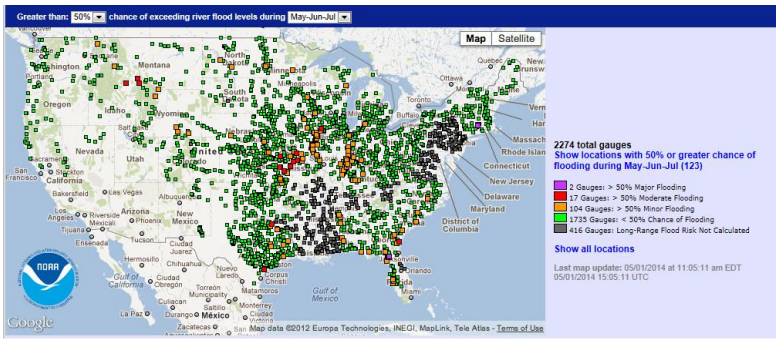
Click maps to enlarge and update

Weather hazards



Fire threat is enhanced over parts of Alaska. Heavy rains are expected over Florida, western Washington and Oregon in the coming days.

National Long Range Outlook



During the next three months, flooding is possible over the Red River Valley in North Dakota, the upper Midwest, and the middle Mississippi River Valley. Currently, **2** gauges have a greater than 50% chance to experience major flooding; **17** gauges for moderate flooding; **104** gauges for minor flooding.

These numbers represent a significant decrease since last week.

National Drought Summary for April 29, 2014

Prepared by: Drought Monitor Author: Richard Heim, NCDC.

Summary

"A weather system moving in the upper-level westerly flow brought swaths of precipitation to the Pacific Northwest, Great Plains, and Midwest early in this U.S. Drought Monitor (USDM) week. Another upper-level weather system stalled out later in the week as it moved across the contiguous United States (CONUS), generating violent weather and locally heavy precipitation, especially along and east of the Mississippi River. Precipitation was below normal across much of the Southwest, southern Plains, and coastal Southeast. Weekly temperatures averaged below-normal in the northern states and in the West, but above normal from the Plains to the Southeast.

Hawaii, Alaska, and Puerto Rico

The week was drier than normal across much of Puerto Rico, with streamflow continuing to be lower than normal at many river gauges. D0 was expanded to reflect additional below-normal streamflow gauges in the western interior region. In Hawaii, D2 on Molokai was deleted, leaving D1 in its place, due to improved Kualapuu Reservoir levels. Water levels on the reservoir have risen to pre-drought levels, but a mandatory 20% cutback in water use remained in place as a precaution for now. This week marks the first time since June 2008 where D2 has been completely removed from the State of Hawaii. Leeward areas of the Big Island, Maui, and Oahu have been dry in recent weeks; D0 was introduced over west Oahu and expanded into the lower leeward elevations of west Maui. D0 was expanded on the Big Island to reflect USDA/FSA reports that, despite having a decent wet season, pastures in the South Kohala and leeward North Kohala Districts have already started to dry out because of the strong trade winds, and coffee growers indicated dry conditions over the Kona slopes. Like last week, Alaska was mostly drier than normal this week, but streams were running above average (except in the panhandle D0 area), so no change was made to the depiction.

Midwest

An inch or more of precipitation fell across most of the mid- to upper-Mississippi Valley and Ohio Valley, with locally 3 to 5 inches reported. D1 was deleted and D0 shrank in Wisconsin, D0-D1 were trimmed in Minnesota, and D0 was reduced in Illinois. In Iowa, the above-normal rainfall helped recharge topsoil moisture but subsoil deficits remained. D2 was deleted in eastern Iowa and D0-D1 contracted in many parts of the state. The USDA reported that soil moisture and crop conditions improved in most districts of Missouri, except the southwest district, with the percentage of the state having topsoil moisture short or very short dropping to 20%. D0 was trimmed in parts of eastern and southeastern Missouri, but D1 expanded in southwest Missouri to reflect dryness at the 30-120 day time scales.

The Northeast and Mid-Atlantic

Precipitation ranged from a few tenths of an inch in the western portions of New York and Pennsylvania to 1 to 2 inches in southern New England. Even though the week was drier than normal over the New England D0 areas, reassessment of short- and long-term precipitation, streamflow, and soil moisture conditions resulted in their removal this week. Long-term dryness resulted in reduced streamflows and growing soil moisture deficits, which supports the expansion of D0 southward along the central to southern Appalachian spine. The 0.5-2.0 inches of rain that fell this week prevented expansion of D0 along the Appalachians, but it was not enough to remove the existing D0 in northern West Virginia and western Maryland.

The Plains

Bands of 2-4 inches of rain fell across parts of the Dakotas, Nebraska, and Kansas this week, but the western portions of Nebraska and Kansas largely missed out on the precipitation. The precipitation from this week's slow-moving upper low replenished topsoil moisture, but subsoil moisture was slow to respond, limiting any improvement. USDA observations improved only slightly, with 53% of Nebraska and 67% of Kansas topsoil still rated short or very short of moisture as of April 27. D0 was pulled back in South Dakota, a D0 hole was added to south central Nebraska, D1 was contracted in eastern Nebraska, and D2 was pulled back in south central Nebraska and north central Kansas. But deterioration occurred in the Nebraska panhandle, where D0 expanded, and in western and southern Kansas, where D2-D3 expanded.

The South

Bands of 1+ inches of rain fell over parts of Oklahoma, with heavier amounts falling in northern Arkansas. But the southern parts of the South received little to no rainfall, with extensive dust storms developing across parts of the southern Plains. In Louisiana, increasing soil moisture deficits, deteriorating crop conditions, and impacts of the dryness on trees, which were losing leaves, prompted the expansion of D0 across southern Louisiana and introduction of D1 along the coast. All of the drought categories expanded across parts of Texas, resulting in D4 covering virtually all of the Texas panhandle, and D3-D4 expanded in northern Oklahoma. 1+ inches of rain resulted in the shrinkage of D0 in eastern Oklahoma, while similar rainfall amounts in southwest Oklahoma had virtually no effect on alleviating long-term deficits. April 27 U.S. Department of Agriculture (USDA) reports indicated that 78% of Texas and 72% of Oklahoma topsoil was short or very short of moisture. The Oklahoma State research station in Goodwell reported widespread crop loss and destruction, with the abandonment of all dryland winter wheat in Cimarron, Texas and southern Beaver counties. D0 was trimmed in parts of Arkansas that received 1+ inches of rain, but it expanded in southwest and northwest Arkansas which missed out on the recent rains and which showed moisture deficits out to 120 days.

The Southeast

Convection associated with the upper-level systems dropped 3-5 inches of rain in bands over parts of Mississippi, Alabama, Tennessee, and Kentucky, with widespread 1+ inches of rain as far east as western North Carolina. The D1 in northern Mississippi was deleted and the D0 from northern Mississippi to central Tennessee was trimmed back where the heaviest rains fell. The D0 in northern Mississippi was labeled SL to reflect long-term dryness but also lingering soil moisture and crop impacts.

The West

Widespread 2+ inches of precipitation fell along coastal Washington and Oregon, with locally 5+ inches of precipitation. Along the Sierra in California, in the northern Rockies, and in parts of northern Nevada and Utah, 1-3 inches of precipitation was reported. Half an inch to 2 inches of precipitation occurred over the Colorado Rockies, and 0.5-1.0 inch was reported in other parts of the West. But the precipitation was largely hit or miss, with other areas receiving only a few tenths of an inch, and much of southern California, Arizona, and New Mexico getting no precipitation. Improvement in the drought depiction occurred in the Northwest, where D0-D2 was pulled back in northeast Washington and parts of Oregon, but D3 expanded in parts of southwest and southeast Oregon. D2-D4 expanded across parts of New Mexico to reflect both short-term precipitation deficits as well as lingering long-term deficits, some stretching over the course of 4 years. D0-D3 expanded in northeast Colorado to reflect dryness at the 30 day to 6 month timescales. D2 was added to Duchesne Co. in northeast Utah and

D1-D2 expanded in southeast Utah and southwest Colorado to reflect dryness at 120 days. In the Four Corners area, the town of Monticello, Utah has major water supply problems. With their reservoir at a critically low level, groundwater wells were drilled for supplemental supply. Even with conservation, they have at most one season of water supply. If snowpack is low again next year, they will have very little water available for municipal supply.

Looking Ahead

As a slow-moving upper-level weather system gradually exits the CONUS, it will leave behind an inch or more of precipitation along the East Coast, with 2-4 inches possible in parts of the Northeast and eastern Gulf of Mexico Coast. In addition, the NWS HPC 7-Day Quantitative Precipitation Forecast (QPF) calls for 1-2 inches of precipitation along the northern tier states, but no precipitation across the Southwest and southern Plains to Lower Mississippi Valley. Temperatures for May 1-6 should be below normal in the central CONUS as the upper low and surface cold front migrate eastward, and above normal in the West. Colder-than-normal air slides into the northern states during May 3-8.

The 6-10 day and 8-14 day outlooks indicate that a change in the upper-level circulation pattern, consisting of a trough over western North America and a ridge over the east, is predicted for May 6-14, bringing warmer-than-normal temperatures for Alaska and the southern Plains to Northeast, and below-normal temperatures for the West to northern Great Lakes. Precipitation is expected to be above normal for much of Alaska and the CONUS, except for the immediate West Coast of the CONUS, Southeast, and extreme Southwest."

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State Activities

State government drought activities can be tracked through their drought plans. NRCS Snow Survey and Water Supply Forecasting (SSWSF) Program State Office personnel are participating in state drought committee meetings and providing the committees and media with appropriate SSWSF information. Additional information describing the tools available from the Drought Monitor can also be found at the U.S. Drought Portal.

More Information

The National Water and Climate Center (NWCC) Homepage provides the latest available snowpack and water supply information. This document is available weekly. CONUS Snowpack and Drought Reports from 2007 are available online. Reports from 2001-2006 are available on request.

This report uses data and products provided by the Interagency Drought Monitor Consortium members and the National Interagency Fire Center.

/s/
David W. Smith
Acting Deputy Chief, Soil Science and Resource Assessment

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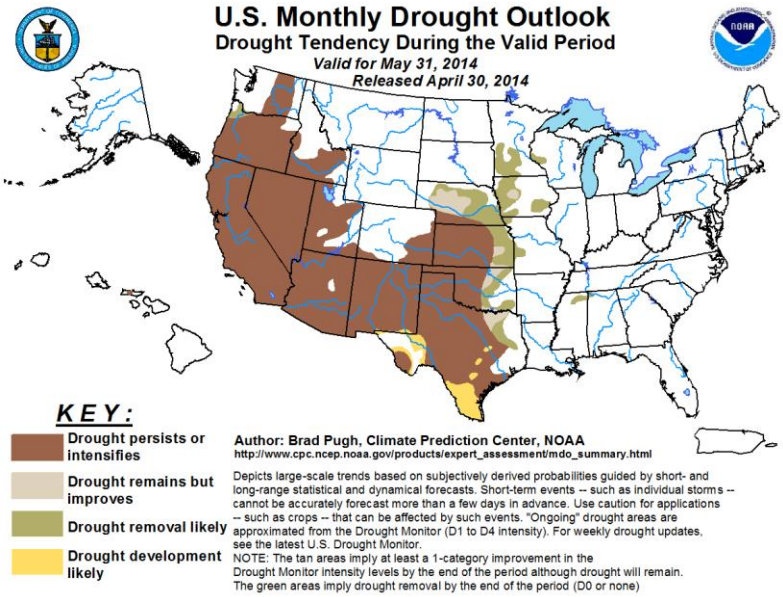
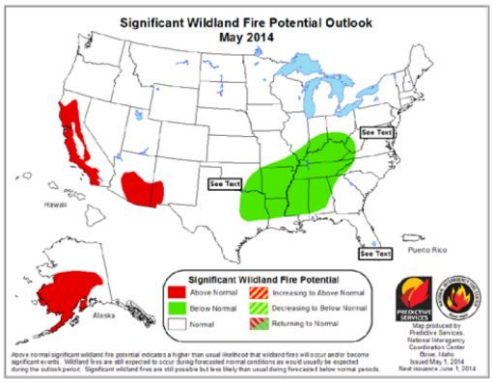
Drought Outlook For May 2014

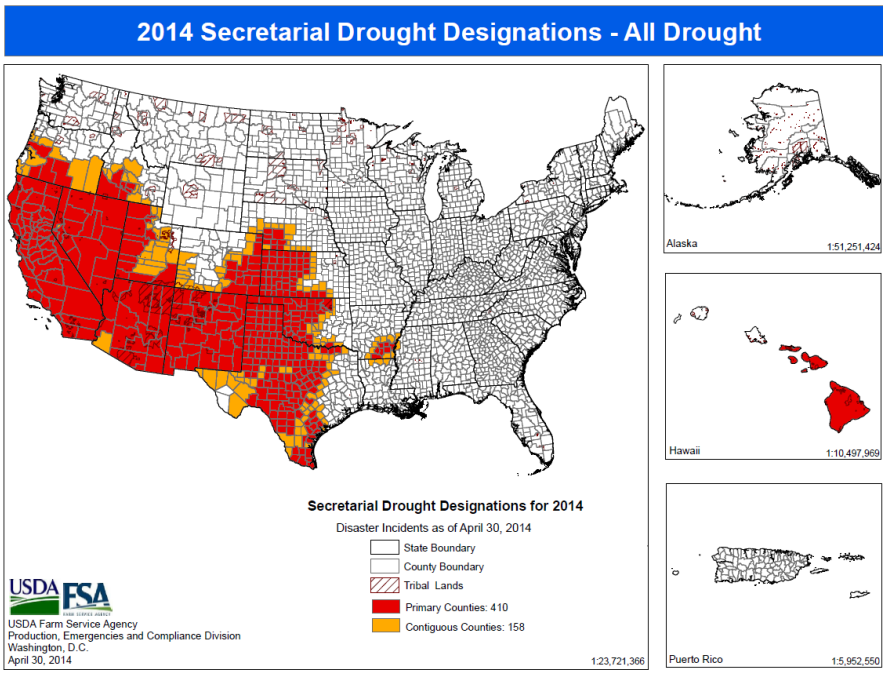


- Drought is expected to persist over much of the West. However, southern and western Texas are expected to see drought development. The eastern half of the Great Plains is expected to see some improvement.

✓ Also see: National Significant Wildland Fire Potential Outlook (updated on the **first** of each month) contains a content summary of the previous month's conditions.



May Forecast (just released)



Refer to the USDA Drought Assistance website and National Sustainable Agriculture Information Service.

Read about the new USDA Regional Climate Hubs.

New useful resource: NASS Quick Stats

Additional Maps

U.S. Maps PowerPoint presentation can be found at: http://dmcommunity.unl.edu/maps/US-Maps.ppt.

The regional zooms of ACIS station data percent-of-normal precipitation can be found at: http://dmcommunity.unl.edu/maps/All-CONUS-ACIS-PNP.pptx.

Supplemental Drought-Agriculture News

Download archived "U.S. Crops in Drought" files

"This following a collection of drought-related news stories from the past seven days or so. Impact information from these articles is entered into the Drought Impact Reporter. A number of these articles will also be posted on the Drought Headlines page at the NDMC website. The list is compiled by Denise D. Gutzmer, Drought Impact Specialist, and National Drought Mitigation Center.

California

Calif. governor issued another executive order

Governor Brown issued an executive order on April 25 to bolster the state's ability to manage water and habitat effectively during drought and urged all residents and businesses to strive for greater water conservation. The order also streamlines contracting rules for the Governor's Office of Emergency Services and CALFIRE for equipment purchases and enables landowners to quickly clear brush and dead, dying or diseased trees that increase fire danger.

The governor also ordered other actions to be taken to cope with continuing drought.

USDA crop production forecast down for California, food prices expected to rise

The USDA forecasts a 20 percent reduction in rice production and a 35 percent drop in cotton production in California this year as farmers leave fields fallow in response to very meager water allocations. In 2013, vegetable and fruit prices in the U.S. rose 3 and 2 percent, respectively, according to the USDA, as low water supplies affected production. The agency expects a similar price increase in 2014 as more than three million acres out of the nine million acres of irrigated land in California receive no surface water, aside from rain.

Thirsty California communities

The California Department of Public Health revised downward the number of communities with less than two months' worth of water left to three. Montague in Siskiyou County, the Redwood Valley County Water District in Mendocino County and a 55-person apartment complex in Mariposa County were in danger of running out of water within two months.

Rains have improved situations for some communities, such as Willits, which has two full reservoirs rather than nearly empty ones as was the case in February. The town's main concern has shifted to fire danger.

Food assistance to drought-stricken communities

The California Department of Social Services announced that shipments of food assistance will be provided to numerous counties because they have high unemployment rates and a high proportion of agricultural workers. The first shipment of five $5 million installments of aid will provide prepackaged boxes of nutritionally balanced, nonperishable food in early May.

Rats overrun San Francisco park

Heron Head's Park in San Francisco has been overrun by large rats for the past two months, which has been unsettling to people and exhilarating to dogs romping in the park. The park is normally a lovely place to stroll and has a dog park and lots of dog walkers, but the abundant and often bold rats have upset park goers.

The owner of an animal removal company said that the warm spring likely led the rats to reproduce earlier than usual, leading to the population spike. In addition, drought has the pests on the move in search of water, in addition to many other animals, such as raccoons, skunks and snakes.

Arizona

Fire restrictions on BLM land in western Arizona, southeastern California

Fire restrictions took effect on 5.4 million acres of land in western Arizona and southeastern California along the Colorado River on April 25. The Bureau of Land Management Colorado River District enacted the fire restrictions to protect public and natural resources.

Nevada

Las Vegas drinking profligately from Lake Mead

Lake Mead, from which the city gets 90 percent of its water, is becoming increasingly depleted due to drought and demand. The Southern Nevada Water Authority has contractors building another intake pipe beneath the reservoir which should be completed in the fall of 2015, but it would be helpful if Las Vegans would cut water use on grass—about 70 percent of the city's water goes to lawns, parks and golf courses. Experts feel that urgent steps should be taken to cut water use in the city. Per capita water use in Las Vegas is 219 gallons of water daily, which is higher than many cities, and water rates are cheaper, too.

New Mexico

Rio Grande River running low in New Mexico

Water will flow in the Rio Grande River in central New Mexico at least through mid-June, said the Bureau of Reclamation and the U.S. Army Corps of Engineers when they released the operating plan for the Rio Grande

River on April 23. The agencies will use supplemental water stored in reservoirs to improve flows during the spring and will release strategically timed pulses of water to aid the endangered silvery minnow during spawning season. A forecast from the Natural Resources Conservation Service predicts streamflow will be less than half of average to less than 25 percent of average during the spring and summer.

Texas

Wichita Falls, Texas nervously awaiting go-ahead from Texas Commission on Environmental Quality

Authorities in Wichita Falls were exasperated to learn that the Texas Commission on Environmental Quality was not much closer to delivering its verdict on their direct potable reuse project. City leaders sent a report with the understanding that the TCEQ would give the city a decision on whether to allow the project within 30 days of receiving the report, but recently learned that the TCEQ wanted the results of the water quality tests before the 30 day window began. Meanwhile, city officials are anxious about their dwindling water supplies and would like a quick response.

In the Drought Impact Reporter, water supplies and quality continue to be the biggest concerns in California and Texas.

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Tea Cup reservoir depictions:

- http://www.usbr.gov/uc/water/basin/ ← Upper Colorado
- http://www.usbr.gov/uc/wcao/water/basin/tc_gr.html; ← Upper Snake
- http://www.usbr.gov/pn/hydromet/burtea.html ← Upper Colorado
- http://www.usbr.gov/uc/water/basin/tc_cr.html ← Upper Colorado
- http://www.usbr.gov/pn/hydromet/select.html ← Pacific Northwest
- http://www.sevierriver.org/reservoirs/teacup-diagram-of-reservoirs/ ← Sevier River Water (UT)

NWCC's Surface Water Supply Index (SWSI) maps are located here.

Supplemental Data

The following is provided by Rick Thoman, Climate Science and Services Manager, Environmental and Scientific Services Division, National Weather Service Alaska Region, Fairbanks, Alaska

"Spring has come to Alaska, and with it snow melt is now well underway south of 67N. Here's a recap of the winter snowpack that is now fading away and running off.

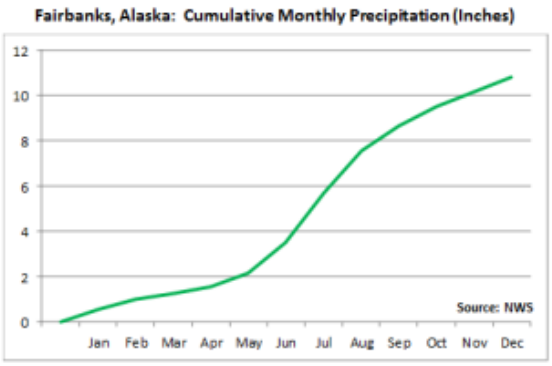
After a very mild autumn and late establishment of the winter snowpack, most areas north of the Alaska Range had near to above normal snowpack by the end of March, including areas that were in D0 or D1 last year. Exceptions include chinook prone areas on the north side of the Alaska Range but these areas often have low spring snowpack. Snowpack meltout dates are near normal.

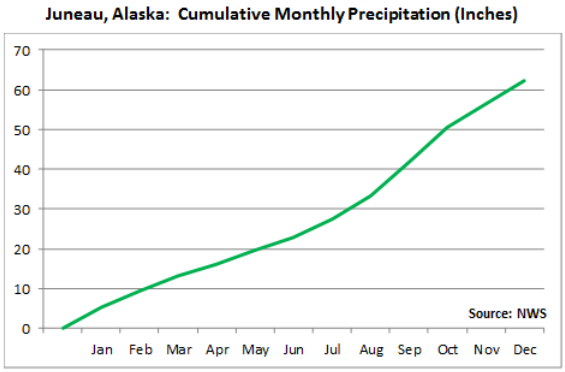
Southwest Alaska and much of the Kenai Peninsula had near to below normal precipitation for the cold season but a much greater percentage as rain due the very mild winter, with most places having a top ten warmest Oct-Mar of record. Many low elevations areas lost all their snow cover during January and never recovered a significant durable snowpack. This area has been highlighted by the GACC as a potential early season fire weather threat.

South-Central Alaska from Anchorage north had near to somewhat below normal winter snowpack, though not low as Southwest and the Kenai Peninsula. Mountain snowpack was farther below normal than most low elevations.

Southeast Alaska finished up with near normal precip and a healthy mountain snowpack except for southern Southeast (Petersburg southward), where precip was near to below normal but mountain snowfall was far below normal. Depending on spring rains this lack of higher elevation snowpack could lead to problems for small hydropower plants.

NRCS Snowpack Basin Summary for April is here, though note there is very little snow course or SnoTel Data in southwest Alaska or southern Southeast."





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The "U.S. Crops in Drought" products and archived files are provided by Brad Rippey, USDA Meteorologist, Office of the Chief Economist, World Agricultural Outlook Board. Brad states:

- "During the four-week period ending on April 29, 2014, contiguous U.S. drought coverage remained virtually unchanged (up 0.06 percentage point) at 38.43%. Nevertheless, drought coverage is at its highest point since October 8, 2013, and up 7.48 percentage points from the beginning of the year.

- In April, devastatingly dry, dusty, windy conditions on the southern Great Plains fueled concerns of a "New Dust Bowl." The "Terrible Teens" drought, which for many parts of the southern Great Plains began in the fall of 2010 and has lasted for more than 3½ years, continued to take a severe toll on rangeland, pastures, and winter wheat. During the four weeks ending April 1, coverage of extreme drought (D3) climbed from 14 to 25% in Kansas, while extreme to exceptional drought (D3/D4) coverage rose from 24 to 39% in Oklahoma; 27 to 38% in Texas; and 25 to 33% in New Mexico.

- A mid-April cold snap added "freeze insult" to drought-injured wheat on the southern Great Plains. Another cold wave at month's end may have caused additional harm to the crop in beleaguered southern wheat production areas. By April 27, one-third (33%) of the U.S. winter wheat was rated in very poor to poor condition, identical to the end-of-April rating for last year's drought-affected crop. Nearly two-thirds (65%) of the wheat was rated very poor to poor in Oklahoma and Texas, while roughly one-third of the crop was rated very poor to poor in Kansas (37%) and Colorado (33%). The portion of the winter wheat production area in drought has been hovering just above the 50-percent mark in recent weeks and stood at 53% on April 29. This value is very similar to what was noted a year ago, on April 30, 2013, when 54% of the wheat crop was in drought. Meanwhile, nearly two-thirds of the winter wheat was rated in good to excellent condition on April 29, 2014, in several states, including South Dakota (65% good to excellent), Montana (64%), Arkansas (63%), Illinois (62%), and Indiana (62%).

- Periodic April storms provided temporary relief to drought-stricken areas from California into the Southwest. April precipitation briefly eased irrigation requirements and aided rain-fed rangeland, pastures, and crops across the nation's southwestern quadrant, but water-supply prospects for the summer remained bleak. California's coverage of extreme to exceptional drought (D3/D4) rose from 69 to 77% during the four weeks ending April 29, while Nevada's coverage climbed from 34 to 39%.

- With the agricultural focus turning toward spring planting – nearly one-fifth (19%) of the intended U.S corn acreage was planted by April 27 – it is worth noting that drought lingers in portions of the western Corn Belt. By April 29, about one-quarter (26%) of the U.S. corn production area was in drought, down 5 percentage points from four weeks ago. Similarly, 19% of the soybean production area was in drought on April 29, down 5 points from April 1.

- Weather outlook: A pesky low-pressure system over the upper Midwest will slowly drift northward, although a few rain and snow showers may linger into the weekend across the Great Lakes region. Meanwhile, early-season heat across parts of the western U.S. will expand across the central and southern Plains late in the week and into the Southeast during the weekend. Chilly conditions will persist, however, across the nation's northern tier. By early next week, a new storm system will arrive in the Northwest and begin to take aim on the nation's mid-section. Early indications are that next week's storm may have a similar footprint to this week's sprawling system, with heavy precipitation in the northern U.S. and windy conditions from the Southwest to the Great Plains."